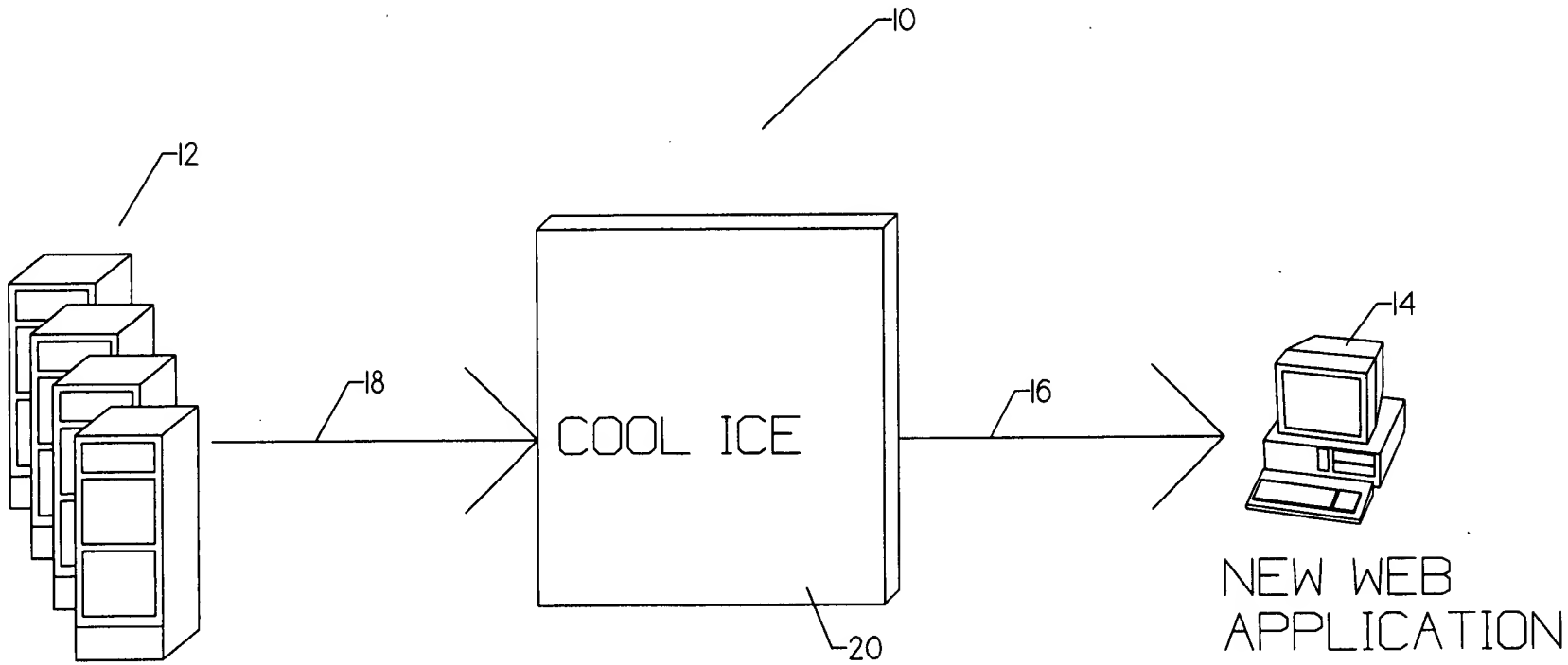
10
12
18
COOL ICE
16
14
20
NEW WEB APPLICATION
EXISTING DATABASES AND APPLICATIONS

FIG. 1

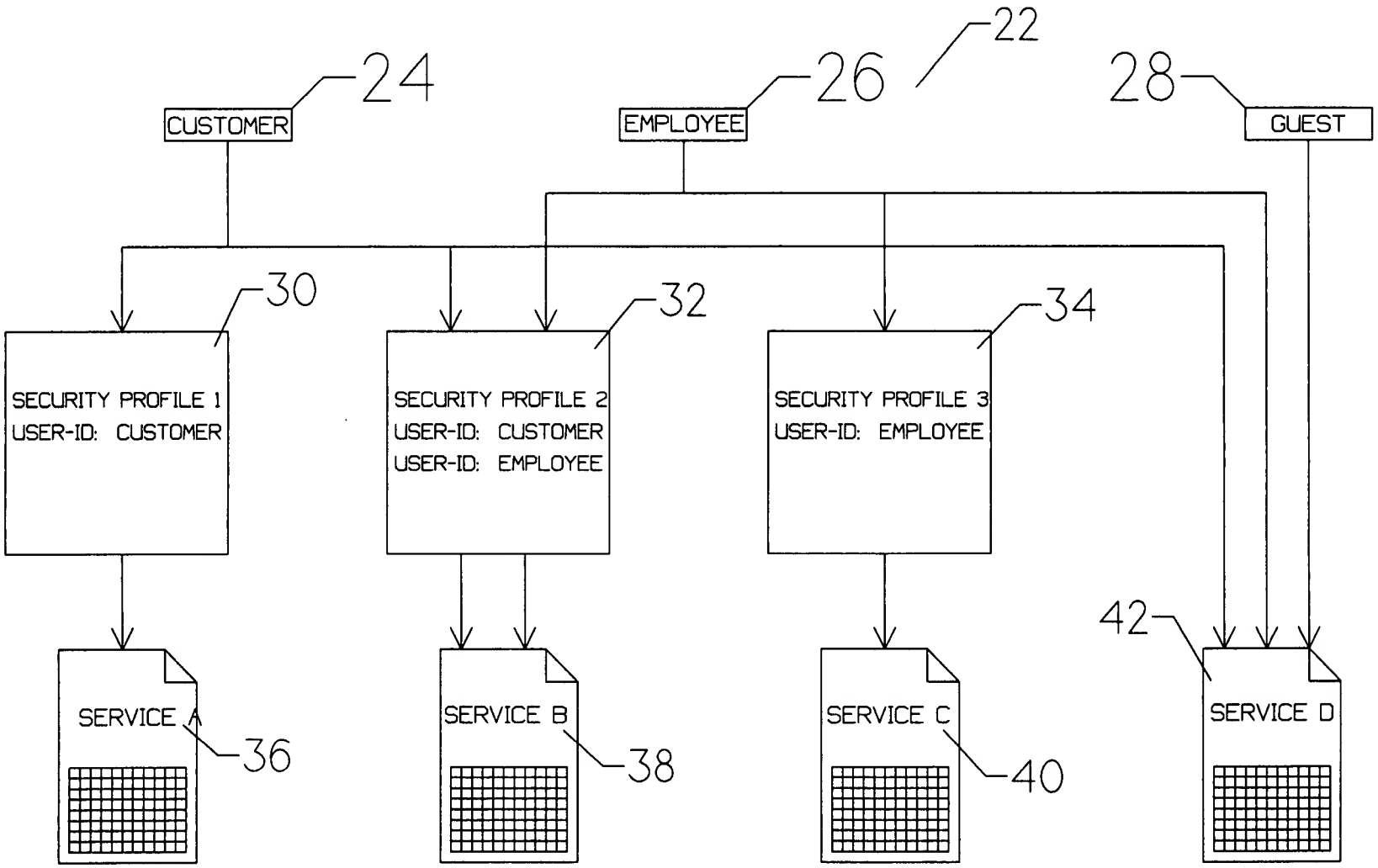
22
24
26
28
CUSTOMER
EMPLOYEE
GUEST
30
32
34
SECURITY PROFILE 1
USER-ID: CUSTOMER
SECURITY PROFILE 2
USER-ID: CUSTOMER
USER-ID: EMPLOYEE
SECURITY PROFILE 3
USER-ID: EMPLOYEE
42
SERVICE A
36
SERVICE B
38
SERVICE C
40
SERVICE D

FIG. 2

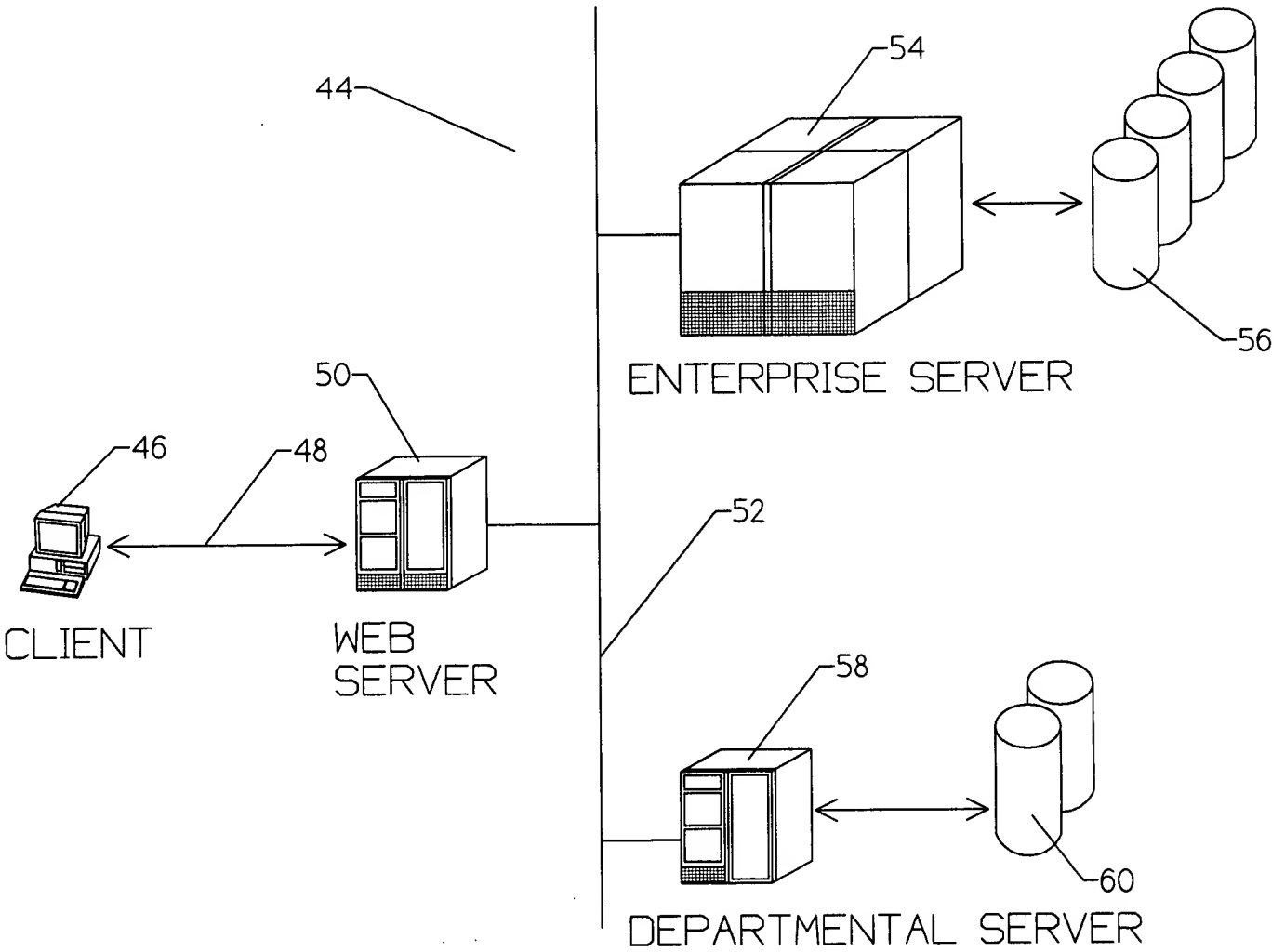
44
54
56
ENTERPRISE SERVER
50
46
48
52
CLIENT
WEB
SERVER
58
60
DEPARTMENTAL SERVER

FIG. 3

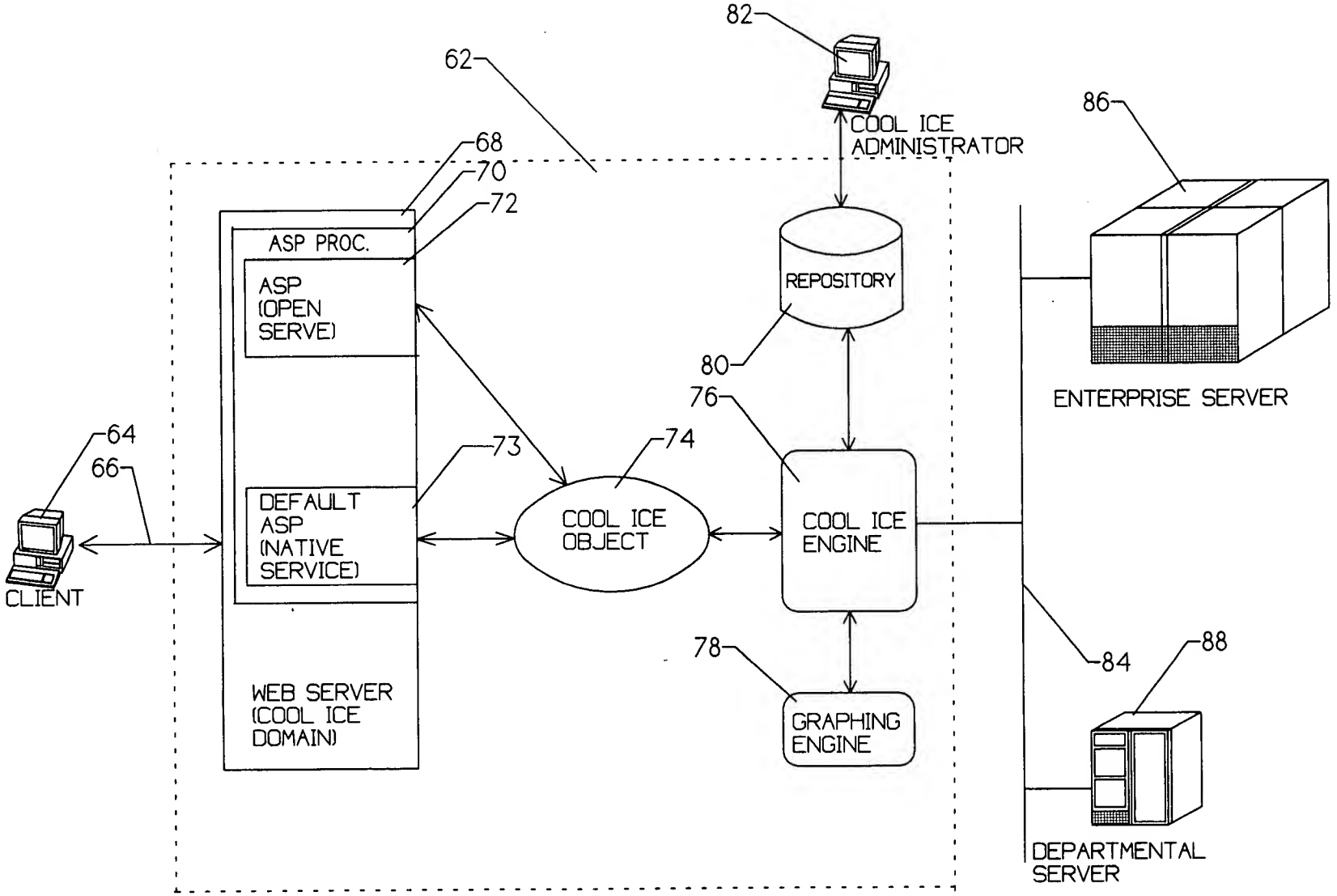
82
62
COOL ICE
ADMINISTRATOR
86
68
70
72
ASP PROC.
ASP
(OPEN
SERVE)
REPOSITORY
80
76
ENTERPRISE SERVER
64
66
73
74
DEFAULT
ASP
(NATIVE
SERVICE)
COOL ICE
OBJECT
COOL ICE
ENGINE
CLIENT
78
84
88
GRAPHING
ENGINE
WEB SERVER
(COOL ICE
DOMAIN)
DEPARTMENTAL
SERVER

FIG. 4

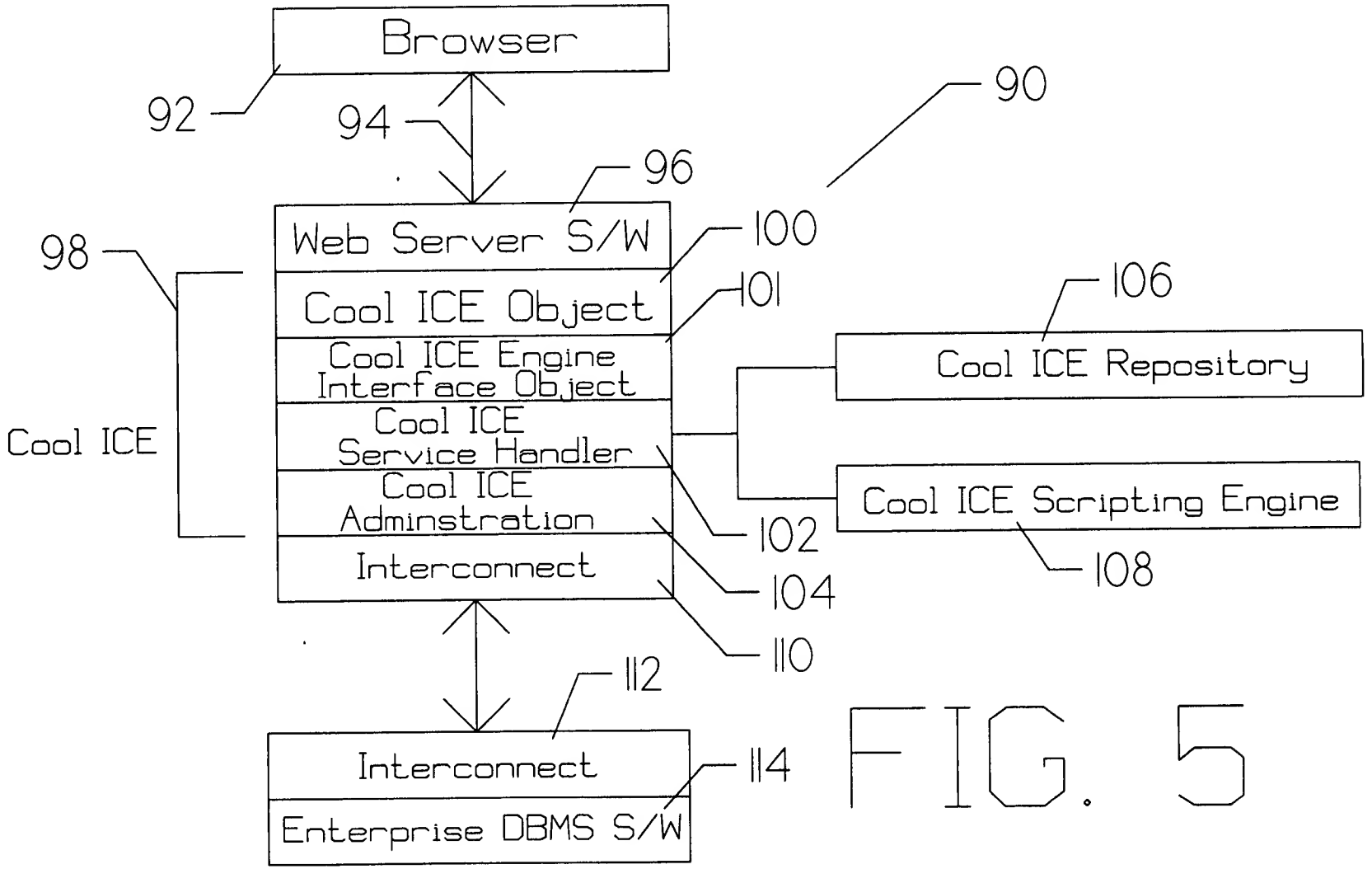
Browser
92
94
96
90
Web Server S/W
100
98
Cool ICE Object
101
106
Cool ICE Engine Interface Object
Cool ICE Repository
Cool ICE
Cool ICE Service Handler
Cool ICE Scripting Engine
Cool ICE Adminstration
102
108
Interconnect
104
110
112
Interconnect
114
Enterprise DBMS S/W

FIG. 5

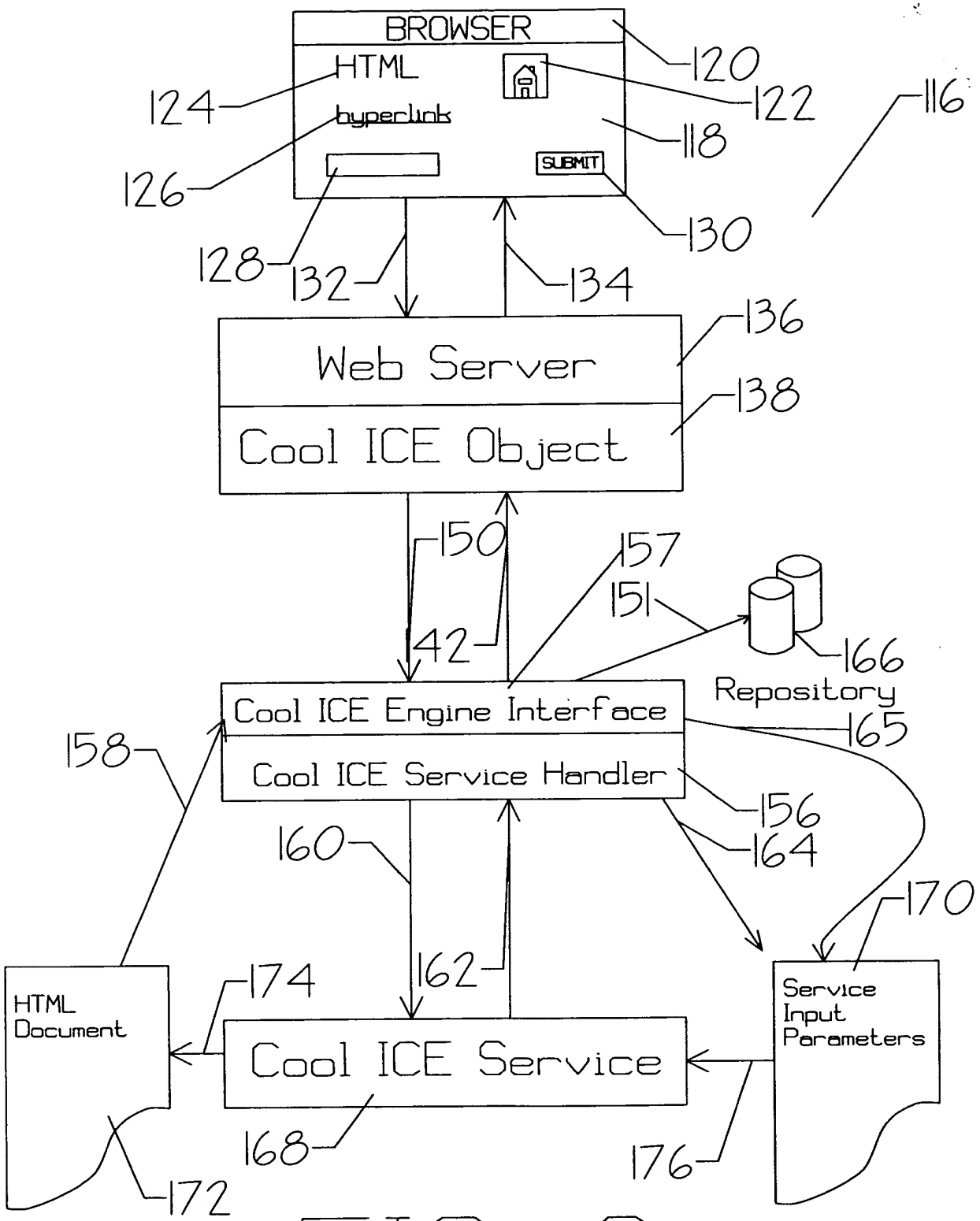
BROWSER
HTML
hyperlink
SUBMIT
120
122
124
126
116
118
128
130
132
134
Web Server
Cool ICE Object
136
138
150
157
151
42
166
Repository
Cool ICE Engine Interface
Cool ICE Service Handler
165
158
156
160
164
170
162
174
HTML Document
Service Input Parameters
Cool ICE Service
168
176
172

FIG. 6

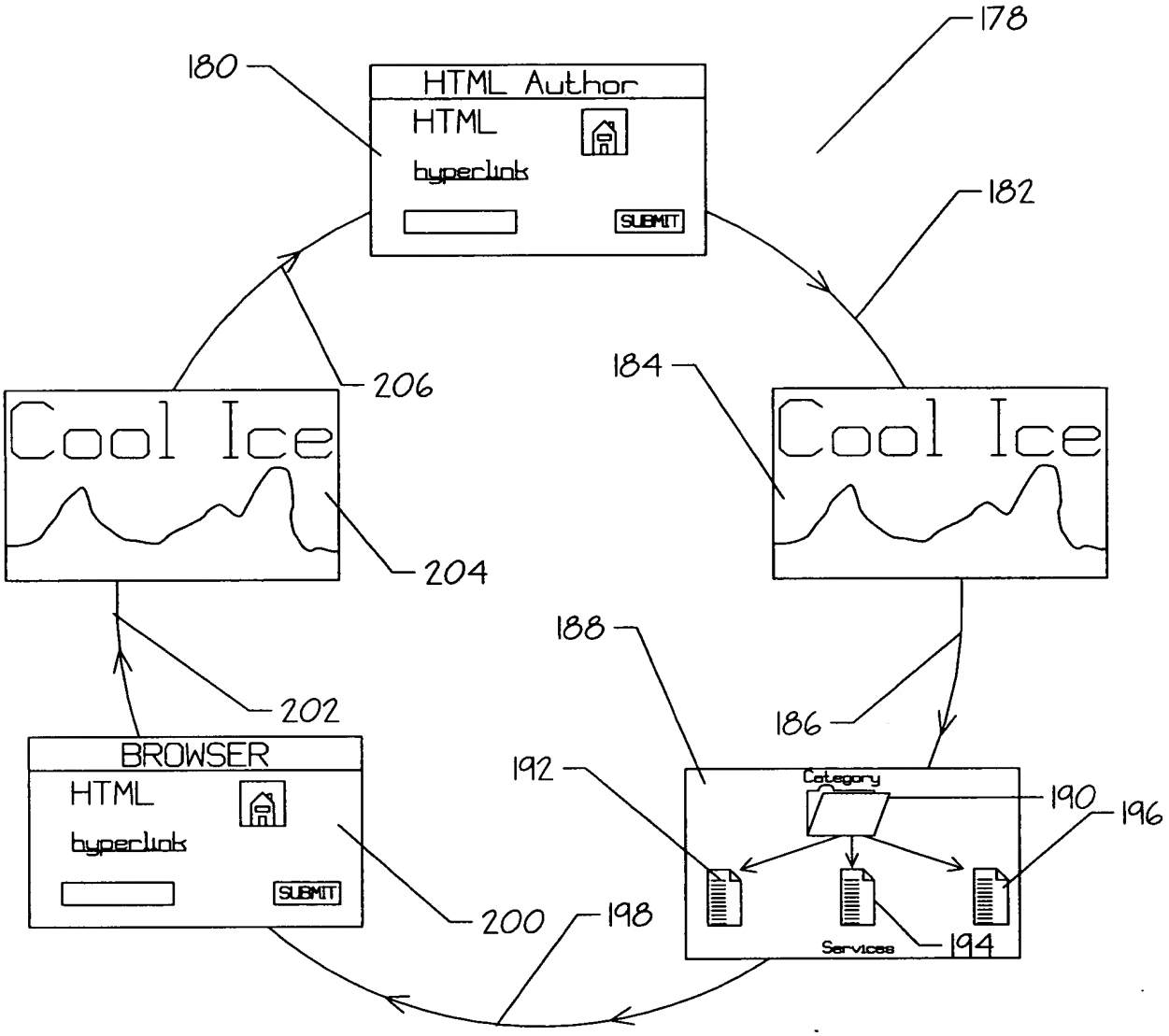
178
180
HTML Author
HTML
hyperlink
SUBMIT
182
206
184
Cool Ice
Cool Ice
204
188
202
186
BROWSER
HTML
hyperlink
SUBMIT
192
Category
190
196
200
198
Services
194

FIG. 7

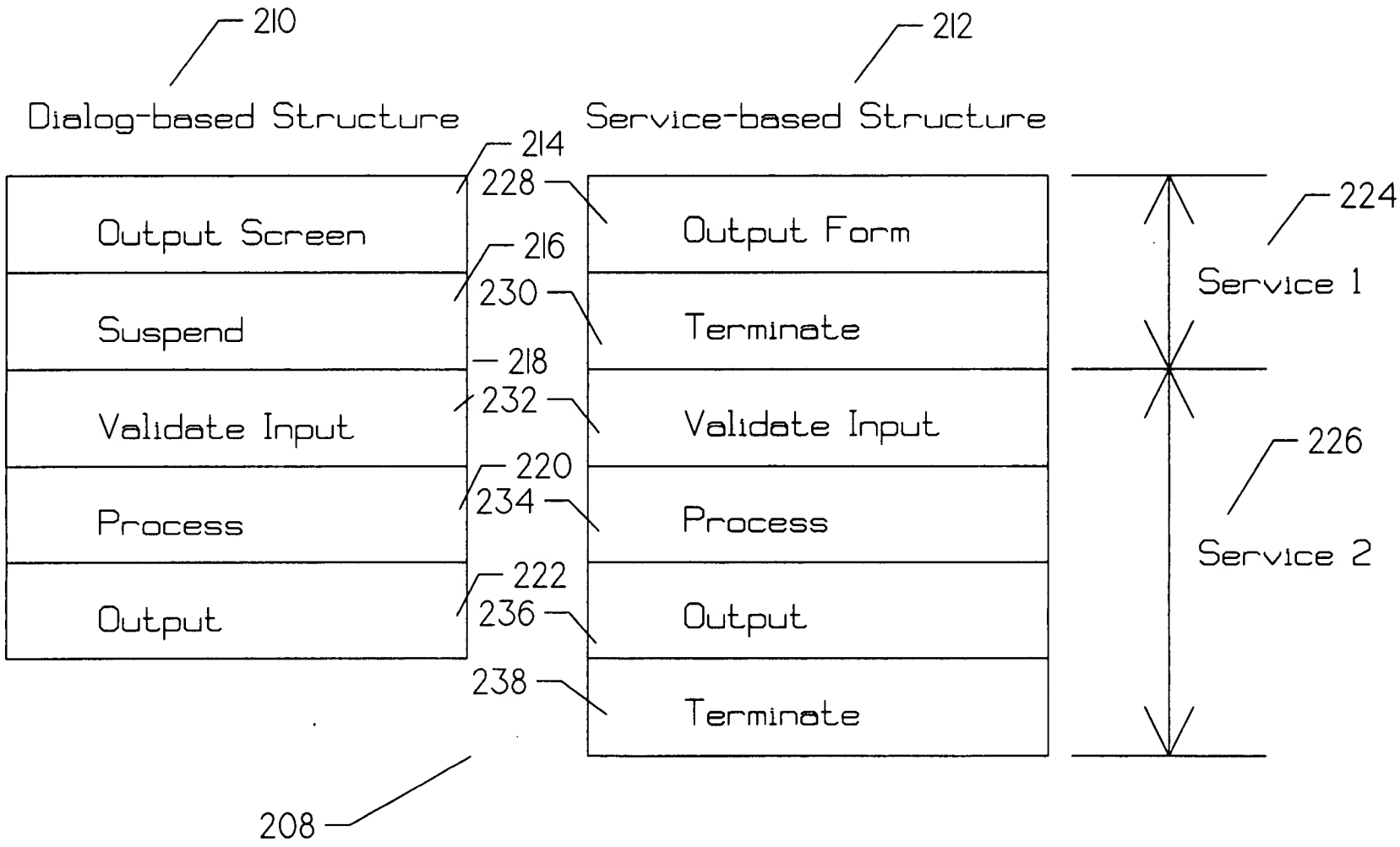
210
Dialog-based Structure
212
Service-based Structure
214
228
216
230
218
232
220
234
222
236
238
Output Screen
Suspend
Validate Input
Process
Output
Output Form
Terminate
Validate Input
Process
Output
Terminate
224
Service 1
226
Service 2
208

FIG. 8

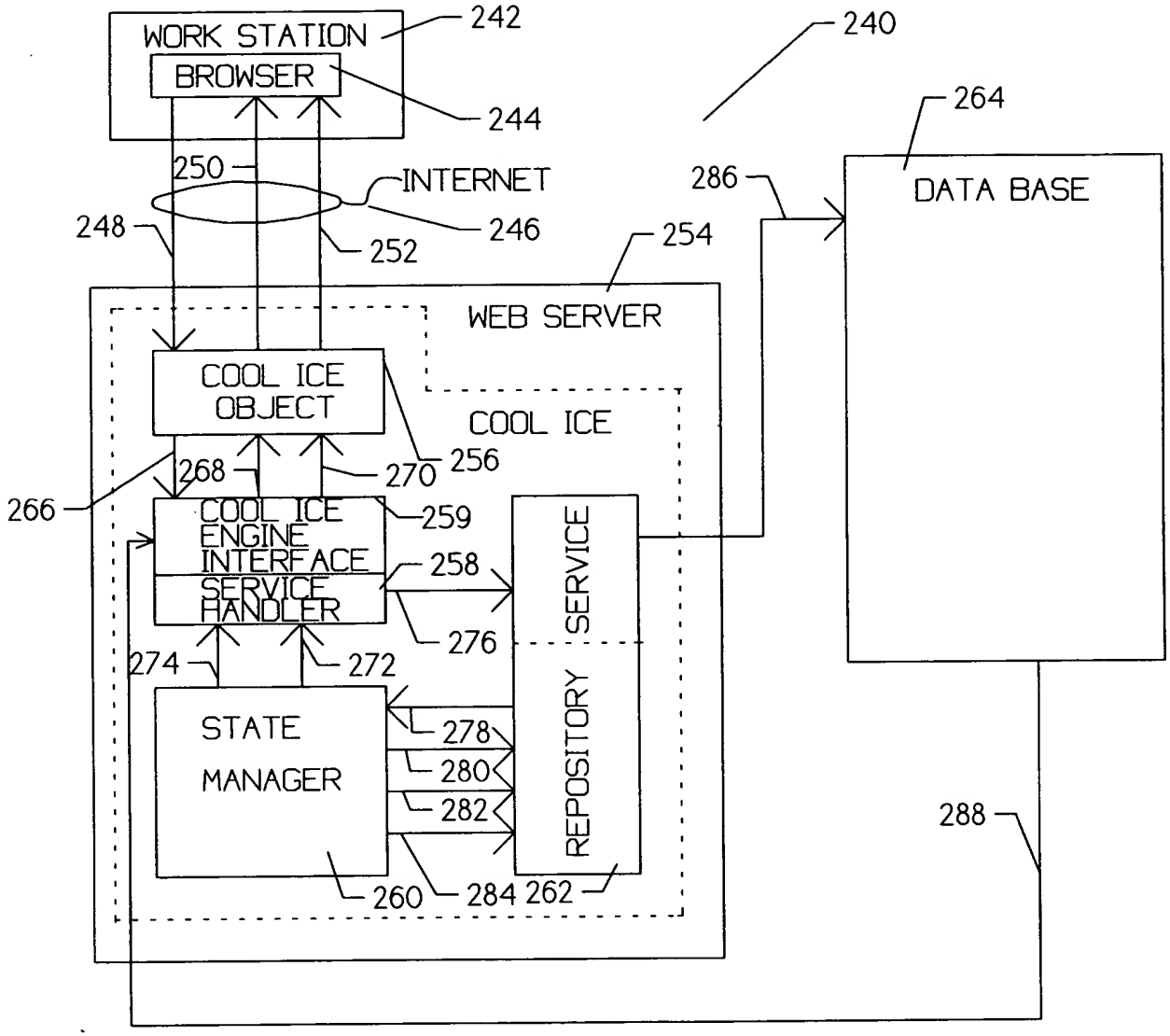
WORK STATION
BROWSER
242
244
240
264
DATA BASE
286
250
INTERNET
246
248
252
254
WEB SERVER
COOL ICE OBJECT
COOL ICE
256
268
270
266
COOL ICE ENGINE INTERFACE
SERVICE HANDLER
259
258
276
SERVICE
REPOSITORY
274
272
STATE MANAGER
278
280
282
288
260
284
262

FIG. 9

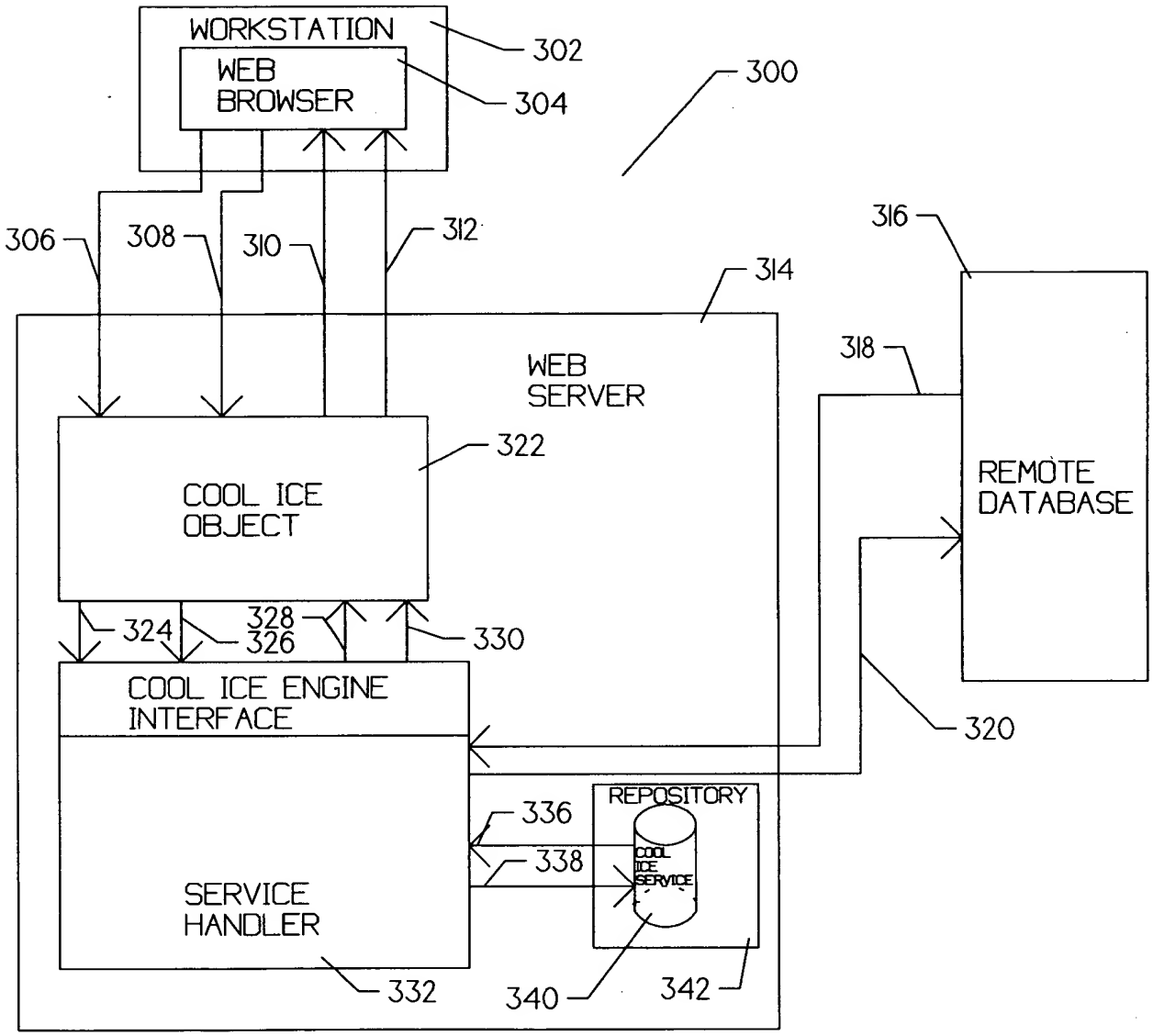
WORKSTATION
WEB BROWSER
302
304
300
306
308
310
312
316
314
WEB SERVER
318
322
COOL ICE OBJECT
REMOTE DATABASE
324
328
326
330
COOL ICE ENGINE INTERFACE
320
REPOSITORY
336
338
COOL ICE SERVICE
SERVICE HANDLER
332
340
342

FIG. 10

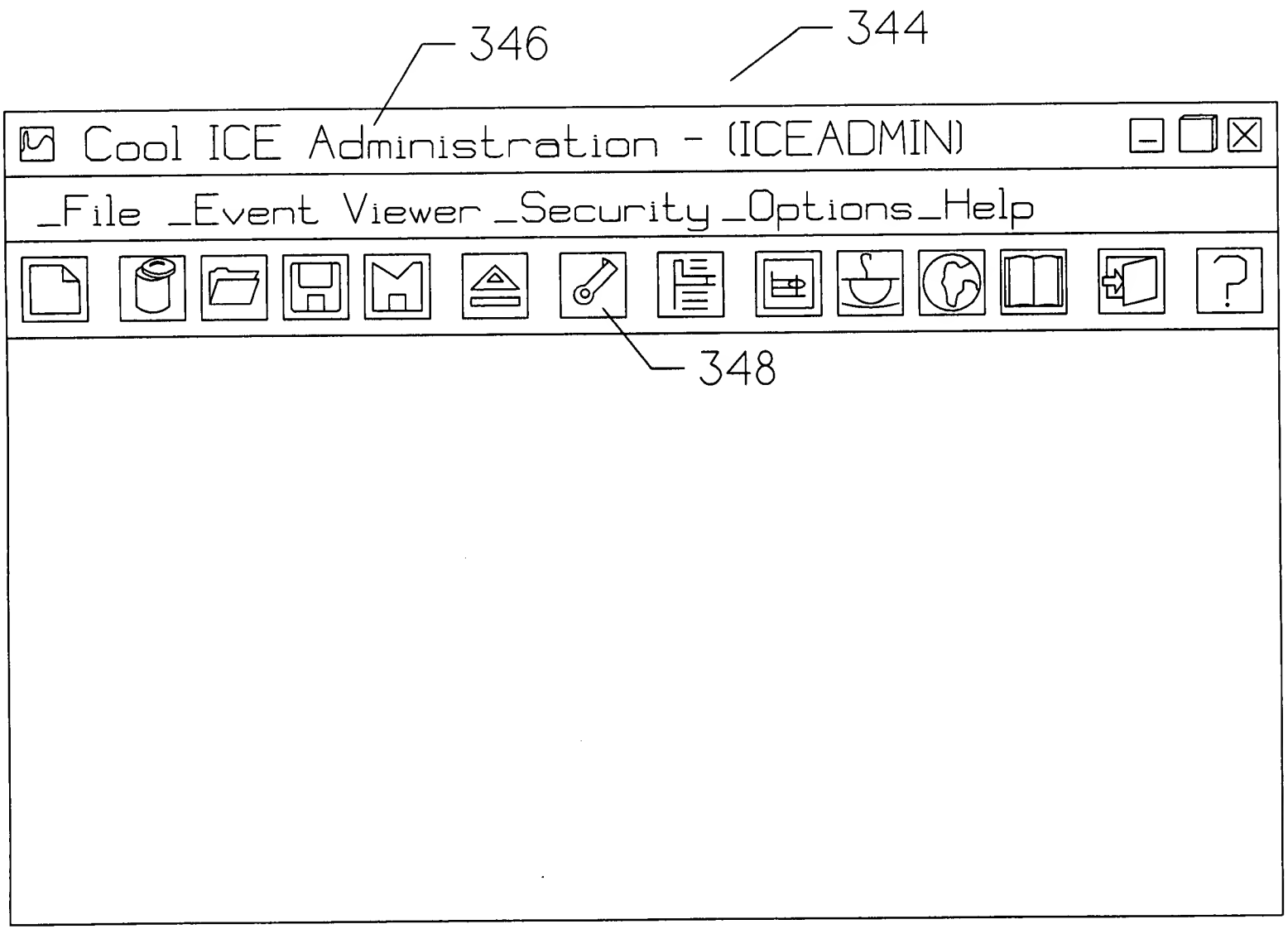
346
344
Cool ICE Administration - (ICEADMIN)
_File _Event Viewer _Security _Options _Help
348

FIG. 11

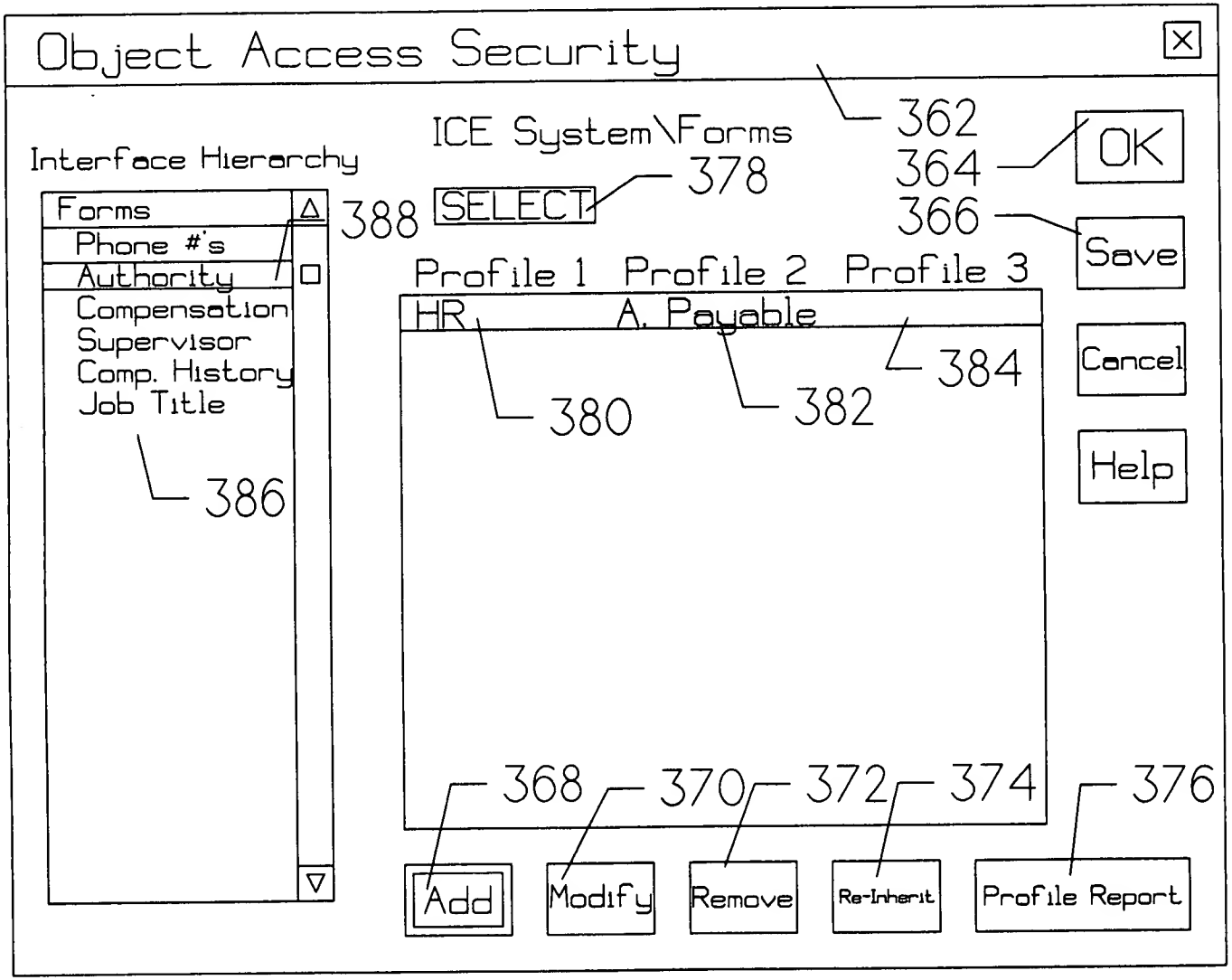
Object Access Security
362
ICE System\Forms
Interface Hierarchy
364
OK
378
SELECT
388
366
Save
Forms
Phone #'s
Authority
Compensation
Supervisor
Comp. History
Job Title
Profile 1
Profile 2
Profile 3
HR
A. Payable
384
Cancel
380
382
386
Help
368
370
372
374
376
Add
Modify
Remove
Re-Inherit
Profile Report
360

FIG. 12

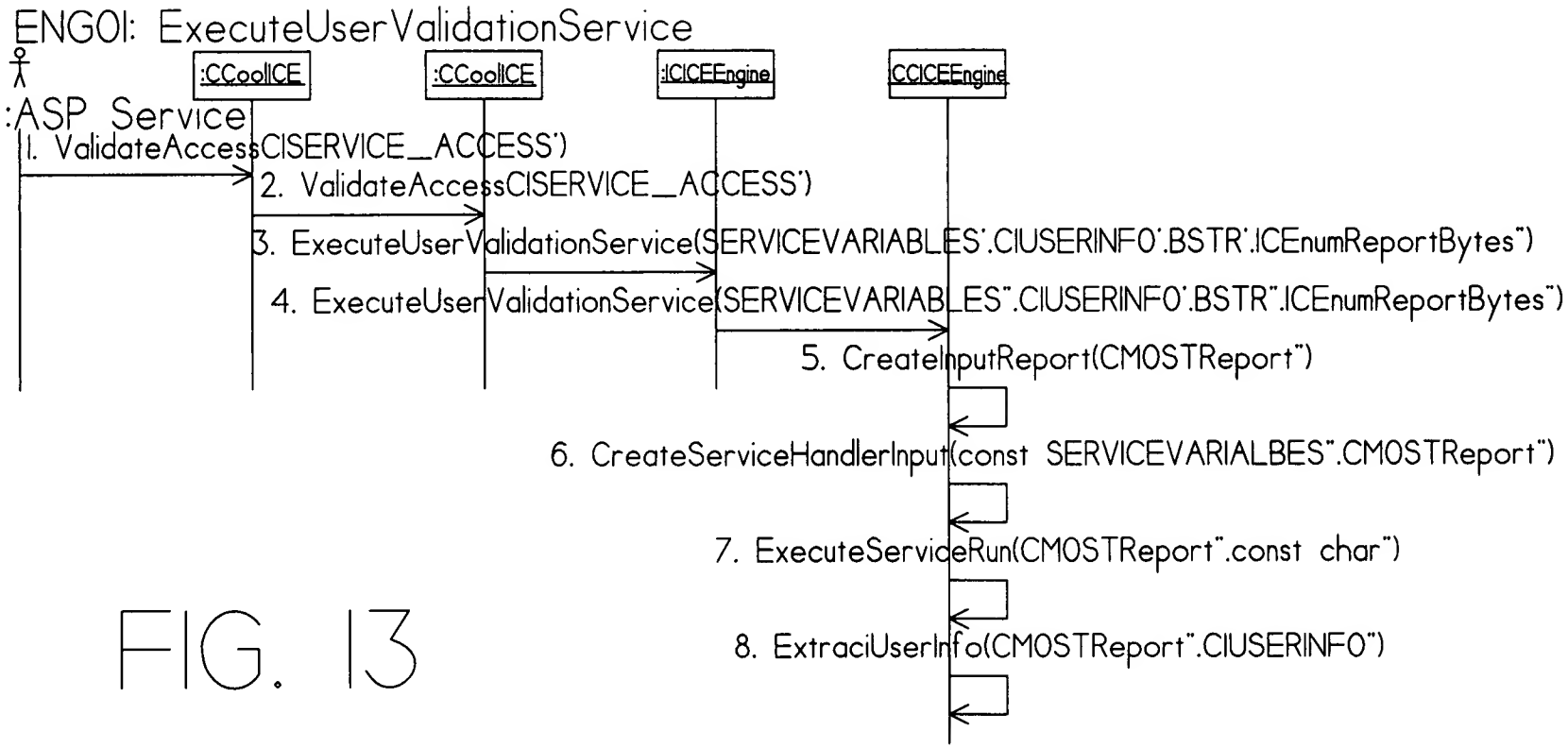
ENG01: ExecuteUserValidationService
:ASP Service
:CCoolICE
:CCoolICE
:ICICEEngine
CCICEEngine
1. ValidateAccessCISERVICE_ACCESS")
2. ValidateAccessCISERVICE_ACCESS")
3. ExecuteUserValidationService(SERVICEVARIABLES".CIUSERINFO".BSTR".ICEnumReportBytes")
4. ExecuteUserValidationService(SERVICEVARIABLES".CIUSERINFO".BSTR".ICEnumReportBytes")
5. CreateInputReport(CMOSTReport")
6. CreateServiceHandlerInput(const SERVICEVARIALBES".CMOSTReport")
7. ExecuteServiceRun(CMOSTReport".const char")
8. ExtraciUserInfo(CMOSTReport".CIUSERINFO")

FIG. 13

| MESSAGE # | DESCRIPTION |
|---|---|
| 1. | Call DeleteSession to delete a CCISession object from the _Module.m_pSession collection |
| 2. | Call the ExtractSessionNumber method to extract a session number from the specified bstrSessionID parameter. The session number is used as an index for retrieve a CCISession object from the _Module.m_pSessions collecion. |
| 3. | Call GetSession to retrieve a pointer to the CCISession object to delete. |
| 4. | S_OK returned. which indicates that the CCISession object was found. |
| 5. | Call CompareSessionId to verify that the specified SessionID parameter matches the SessionID property in the CCISession object. A mismatch can occur when a CCISession object has time out. and a new CCISession object was added to the m_pSession collection. |
| 6. | S_OK returned. which indicates that the SessionIDs were equal. |
| 7. | Call Remove to remove the CCISession object from the m_pSessions collection. |

FIG. 14